



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE TECH CENTER 1600/290

IN RE APPLICATION OF: BRONK, ET AL.

APPLICATION NO.: 09/424,104 : Examiner: PESELEV, E.

FILING DATE: NOVEMBER 18, 1999 : Group Art Unit: 1623

TITLE: 4"-SUBSTITUTED-9-DEOXO-9A-AZA-:

9A-HOMOERYTHROMYCIN A

**DERIVATIVES** 

Assistant Commisioner for Patents Washington, D.C. 20231

Sir:

## Declaration Pursuant to 37 CFR §1.132

I, Brian S. Bronk, am a citizen of the United States, residing at 66 Partridge Hollow Road, Gales Ferry, Connecticut, U.S.A., and I declare as follows:

- 1. I am one of the above-identified co-inventors named in the subject application.
- 2. I obtained a Ph.D. degree in Chemistry from Massachusetts Institute of Technology, Massachusetts, U.S.A. I have been employed by Pfizer Inc. since October 1994.
- 3. I have read the Office Action dated January 8, 2001 concerning the subject application.
- 4. I understand that this is being submitted to show the surprising antibacterial activity as illustrated by *in vivo* mouse PD50 data of the compounds of the present application.
- 5. Based on *in vivo* mouse PD50 data that was generated using the experimental protocol described in attached exhibit 1, a representative compound of the present invention, referred to herein as compound 1, showed surprisingly better antibacterial activity when compared to a compound containing the ring structure of Hauske that was modified with a 4" substituent described by Yang et al. These compounds and their PD50 values are shown below.

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Representative compound 1 of the present invention Mouse PD50 = 28 mg/kg

Compound 2 (Hauske modifed with Yang 4" substituent) Mouse PD50 > 80 mg/kg

- 6. The above data show that substituting at least one of the 4" substituents described by Yang et al into the ring structure of Hauske does not result in a compound (compound 2) exhibiting commercially acceptable antibacterial activity.
- 7. Since at least one of the 4" substituents described by Yang et al. does not, when substituted into the ring structure described by Hauske, provide adequate antibacterial activity (as illustrated by *in vivo* mouse PD50 data), it would not be reasonable to expect, based on the descriptions of Yang et al and Hauske, that all or

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any of the Yang et al substituents would, if substituted into the ring structure described by Hauske be expected to show antibacterial activity.

- 8. Further, it was therefore unpredictable at the time of the present invention as to which, if any, of the 4" substituents described by Yang et al, i.e., alkyl, alkenyl or phenyl groups, or a hydrogen and a specified amino derivative (column 2 lines 40 to 65 of Yang et al) would, if substituted into the ring structure described by Hauske, provide for compounds exhibiting antibacterial activity (as illustrated by *in vivo* mouse PD50 data).
- 9. The undersigned inventor declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issuing thereon.

Signed:

Brian S. Bronk

Date:

June 6, 2001

Notary Public

PATRICIA GABEL

NOTARY PUBLIC

MY COMMISSION EXPIRES MAY 31, 2002